

Transformation by Heat Shock

1. Thaw a vial of 100µl Trans5 α Chemically Competent Cell on ice, aliquot 50µl of the cells into a prechilled 1.5ml tube, add target DNA into the tube and mix gently. Incubate the cells on ice for 30 minutes.
2. Heat-shock the cells for 45 seconds at 42°C, and then quickly remove the tube from the 42°C water bath and place them on ice for 2 minutes. Do not shake the tube during this procedure.
3. Add 500µl of sterile SOC medium or LB medium (no antibiotic) into the tube, mix well and shake at 37°C for 1 hour at 200 rpm to resuscitate cells.
4. According to the experiment requirement (plasmid, transformation of recombination ligation product), add different volumes of transformed into corresponding antibiotic-containing LB medium. Spread the transformed cells on selective plate. Invert the plate and incubate at 37°C overnight.

Note:

- High efficiency transformation can be achieved by transforming cell immediately following thawing.
- Avoid repeated thawing.
- Avoid pipetting cells.
- Gentle handling is required for the entire procedure.

Reference: TransGen Biotech® Trans5 α Chemically Competent Cell Handbook